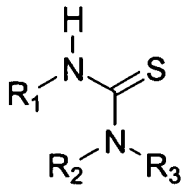
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for preventing, reducing, or ~~otherwise~~ treating hearing impairment due to noise-induced hearing loss (NIHL), aging, or chemical-induced hearing loss (CIHL), comprising administering to a subject a compound, or a pharmaceutically acceptable salt, tautomer, solvate, or clathrate~~, prodrug or metabolic derivative~~ thereof, having a structure according to Formula I:



Formula I

wherein~~, as valence and stability permit,~~

R_1[[,]] and R_2 ~~and R_3~~, independently for each occurrence, represent ~~hydrogen, alkyl,~~ alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea[[,]];

R_3 is selected from hydrogen, alkyl, alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea; or

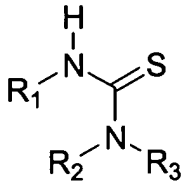
R_1 and R_2 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members[[,]]; or

R_2 and R_3 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members.

2. The method of claim 1, wherein R_1 and R_2, taken together form a substituted or unsubstituted ~~aryl, a cycloalkyl, cycloalkenyl,~~ heterocyclyl ring~~, polycyclyl, or cyclic metal complex~~.

3-10. (Cancelled).

11. (Currently Amended) A method for preventing or treating hearing impairment in a subject undergoing treatment with an ototoxic chemotherapeutic drug selected from an aminoglycoside antibiotic, a platinum-containing antineoplastic agent, a ~~certain~~ quinine-like compounds or an ototoxic diuretic drug, comprising administering to the subject in need of such treatment a therapeutically effective amount of a compound represented by formula I:



Formula I

wherein~~, as valence and stability permit,~~

R_1[[,]] and R_2 ~~and R_3~~, independently for each occurrence, represent ~~hydrogen, alkyl,~~ alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea[[,]];

R_3 is selected from hydrogen, alkyl, alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea; or

R_1 and R_2 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members[[,]]; or

R_2 and R_3 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members.

12. (Cancelled).

13. (Currently Amended) The method of ~~any of~~ claims 11~~-12~~, wherein said compound is administered prior to, simultaneously with, or subsequent to administration of said ototoxic chemotherapeutic drug.

14. (Currently Amended) The method of ~~any of~~ claims 11~~-12~~, wherein a therapeutically effective amount of the compound is administered with each dose of ototoxic chemotherapeutic agent, at specified intervals throughout the treatment course, or at the beginning of the treatment course.

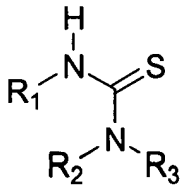
15. (Currently Amended) The method of ~~any of~~ claims 11~~-12~~, wherein ~~a~~ the compound is administered between 72 hours before and 36 hours after treatment with said ototoxic chemotherapeutic drug.

16. (Currently Amended) The method of ~~any of~~ claims 11~~-12~~, wherein the drug is an aminoglycoside antibiotic selected from amikacin (BB-K8), butirosin, geneticin, gentamicin, kanamycin, lividomycin, neomycin, paromomycin, hybrimycin, propikacin (UK 31214), ribostamycin, seldomycin, trehalosamine, α-D-mannosyl-α-D-glucosaminide, apramycin, bluensomycin, netromycin, streptomycin, tobramycin, sisomicin, destomycin, Antibiotic A-396-I, dibekacin, kasugamycin, fortimicin, or a derivative or an analog or a variant~~s thereof~~ of any of the foregoing.

17. (Currently Amended) The method of ~~any of~~ claims 11~~-12~~, wherein the drug is a platinum-containing antineoplastic agent selected from cis-diaminedichloroplatinum(II) (cisplatin), trans-diaminedichloroplatinum(II), cis-diamine-diaquaplatinum(II)-ion, chloro(diethylenetriamine)-platinum(II) chloride, dichloro(ethylene-diamine)-platinum(II), diamine(1,1-cyclobutanedi-

carboxylato)-platinum(II), spiroplatin, dichlorotrans-dihydroxybisisopropolamine platinum IV (iproplatin), diamine(2-ethylmalonato)-platinum(II), ethylenediamine-malonatoplatinum(II), aqua(1,2-diaminodyclohexane)-sulfatoplatinum(II), (1,2-diaminocyclohexane)malonato-platinum(II), (4-carboxyphthalato)(1,2-diaminocyclo-hexane)-platinum(II), (1,2-diaminocyclohexane)-(isocitrato)platinum(II), (1,2-diaminocyclohexane)-cis(pyruvato)platinum(II), or (1,2-diaminocyclohexane)-oxalatoplatinum(II).

18. (Currently Amended) A method to prevent, reduce, or ~~otherwise~~ treat hearing impairment due to NIHL, comprising administering a therapeutically effective amount of a compound represented by formula I:



Formula I

wherein~~, as valence and stability permit,~~

R_1[[,]] and R_2 ~~and R_3~~, independently for each occurrence, represent ~~hydrogen, alkyl,~~ alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea[[,]];

R_3 is selected from hydrogen, alkyl, alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea; or

R_1 and R_2 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members[[,]]; or

R_2 and R_3 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members.

19. (Cancelled).

20. (Currently Amended) The method of ~~any of~~ claims 18 ~~or 19~~, wherein the compound is administered between 72 hours before and 36 hours after an otodestructive noise.

21. (Currently Amended) A pharmaceutical dosage form comprising a therapeutically effective amount of the compound of represented by formula I:

Formula I

wherein~~, as valence and stability permit,~~

R_1[[,]] and R_2 ~~and R_3~~, independently for each occurrence, represent ~~hydrogen, alkyl,~~ alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea[[,]];

R_3 is selected from hydrogen, alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea; or

R_1 and R_2 taken together form an ~~substituted or~~ unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members[[,]]; or

R_2 and R_3 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members.

22. (Cancelled).

23. (Currently Amended) The dosage form of ~~any of~~ claims 21 ~~or 22~~, wherein said dosage form is a tablet, a capsule, or an oral solution.

24. (Currently Amended) The dosage form of ~~any of~~ claims 21 ~~or 22~~, wherein said dosage form is adapted for intravenous infusion, parenteral delivery, or oral delivery.

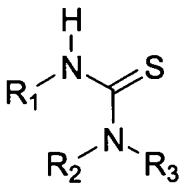
25. (Currently Amended) The dosage form of ~~any of~~ claims 21 ~~or 22~~, wherein said therapeutically effective amount of the compound is in the range of about 0.1 mg/kg body weight to about 500 mg/kg body weight.

26. (Currently Amended) The dosage form of ~~any of~~ claims 21 ~~or 22~~, wherein said therapeutically effective amount of the compound is in the range of about 1 mg/kg body weight to about 400 mg/kg body weight.

27. (Currently Amended) The dosage form of ~~any of~~ claims 21 ~~or 22~~, wherein said therapeutically effective amount of the compound is in the range of about 10 mg/kg body weight to about 100 mg/kg body weight.

28. (Currently Amended) The dosage form of ~~any of~~ claims 21 ~~or 22~~, wherein said effective amount of compound is in the range of about 10 mg/kg body weight to about 75 mg/kg body weight.

29. (Currently Amended) A pharmaceutical formulation comprising a therapeutically effective amount of a compound of formula I:



Formula I

wherein~~, as valence and stability permit,~~

R_1[[,]] and R_2~~ and R_3~~, independently for each occurrence, represent ~~hydrogen, alkyl,~~ alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea[[,]];

R_3 is selected from hydrogen, alkenyl, alkynyl, alkylthio, imine, amide, cyano, isocyano, carbonyl, carboxyl, carboxamide, alkylsulfonyl, arylsulfonyl, ketone, aldehyde, ester, heteroalkyl, nitrile, amidine, acetal, ketal, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aziridine, carbamate, imide, urea, or thiourea; or

R_1 and R_2 taken together form an ~~substituted or~~ unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members[[,]]; or

R_2 and R_3 taken together form a substituted or unsubstituted ~~aryl,~~ heteroaryl~~, carbocyclyl,~~ or heterocyclyl ring having 4 to 8 members;

formulated together with an ototoxic chemotherapeutic agent, either as a preparation or a kit, without diminishing the efficacy of the chemotherapeutic agent.

30. (Cancelled).